

# Ethanol Update

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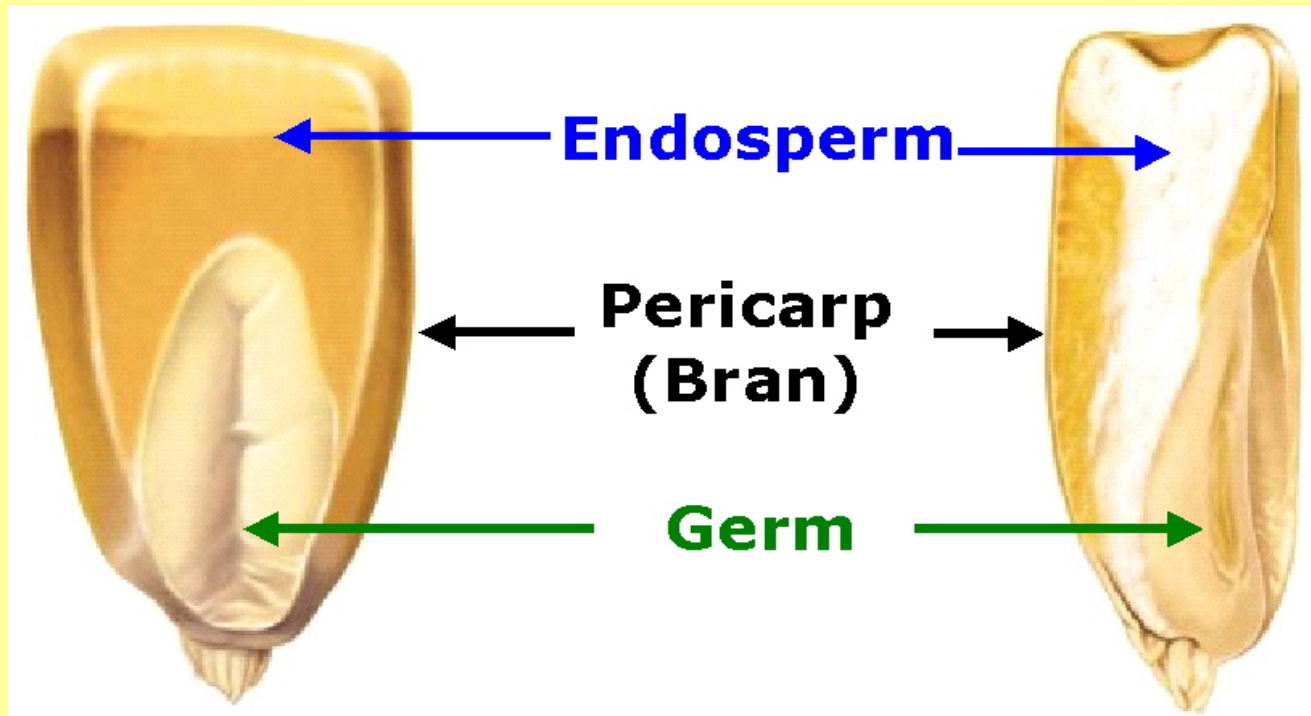
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2007 Michigan Corn Growers Association  
Annual Meeting  
February 6, 2007





# Inside the Corn Seed





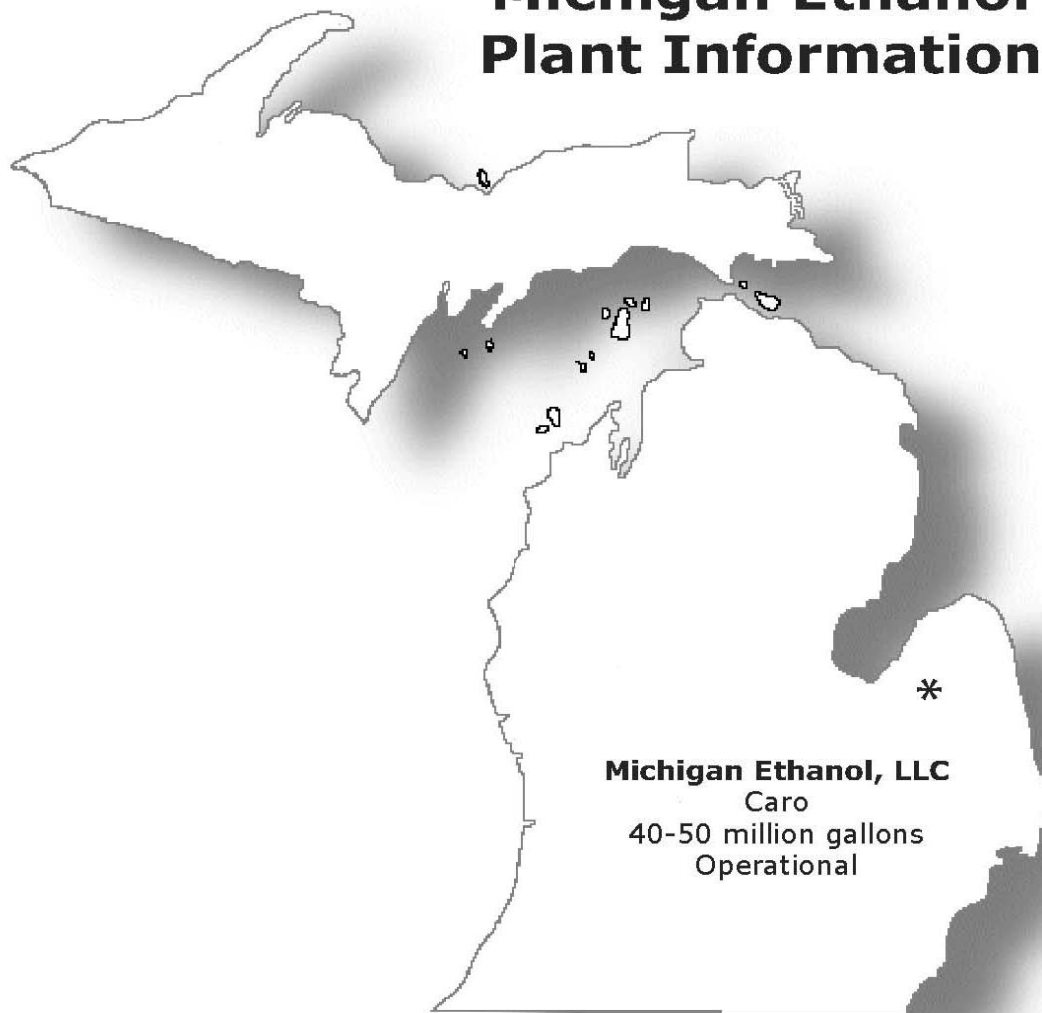
# Michigan Corn Statistics

- Michigan Corn Production (2006)
  - 2.2 million acres planted per year
  - Record average yield of 147 bushels per acre
  - Record production of 288 million bushels
  - ■ ■ ■ ■ ■ ■
  - 50% of MI corn shipped out of state
  - 28% of MI corn fed to livestock in-state
  - 12% of MI corn used in processing (ethanol)

According to Michigan Agricultural Statistics  
Service Annual Report 2005-06 and ProExporter



## Michigan Ethanol Plant Information



**Michigan Ethanol, LLC**  
Caro  
40-50 million gallons  
Operational

Ethanol  
production  
(Sept. 2002-  
July 2006)



# Michigan Ethanol, LLC





# Michigan Ethanol, LLC Event



# Current ethanol production (Feb. 2007)





# The Andersons Albion Ethanol Plant



# The U.S. Bio Woodbury Plant Grand Opening



# The U.S. Bio Woodbury Plant Grand Opening





# Current ethanol production and construction (Feb. 2007)





Wayne County,  
Reading, Harbor Beach,  
Manistee, Alma,  
Morrice, Flint

## Michigan Ethanol Plant Information

**Next GenEnergy, LLC**  
McBain



**US Bio Woodbury**  
Lake Odessa

**The Andersons Albion  
Ethanol, LLC**  
Albion

**Next GenEnergy, LLC**  
Watervliet



**Michigan Ethanol, LLC**  
Caro

**Liberty RF, LLC**  
Ithaca

**Marysville Ethanol, LLC**  
Marysville

**E85, Inc.**  
Corunna

**Global Ethanol, LLC**  
Riga Township



## Michigan Ethanol Plant Corn Consumption – operational, construction and proposed

Plant	Annual Corn Consumption
Michigan Ethanol, LLC	16 million bushels
The Andersons Albion Ethanol, LLC	20 million bushels
U.S. Bio Woodbury, LLC	16 million bushels
Global Ethanol, LLC	20 million bushels
Marysville Ethanol, LLC	18 million bushels
Liberty Renewable Fuels. LLC	36 million bushels
E85, Inc.	36 million bushels
Next GenEnergy, LLC - McBain	18 million bushels
Next GenEnergy, LLC - Watervliet	18 million bushels
<b>Total</b>	<b>198 million bushels</b>



# Dried Distiller Grains

- DDGS – Co-product of all distillery industries.
  - 98 percent from ethanol production
  - 2 percent from alcohol beverage industry
- In the United States nearly 8 million metric tons of DDGS were produced in 2006
  - Primarily used within the United States
- Increase demand for ethanol = increased production of DDGS
  - 2007 10 million tons?



# Potential Dried Distiller Grains Production in Michigan

Plant	DDGS Production (tons)
Michigan Ethanol, LLC	145,000
The Andersons Albion Ethanol, LLC	177,000
U.S. Bio Woodbury, LLC	145,000
Global Ethanol, LLC	183,000
Marysville Ethanol, LLC	160,000
Liberty Renewable Fuels. LLC	350,000
E85, Inc.	320,000
Next GenEnergy, LLC - McBain	160,000
Next GenEnergy, LLC - Watervliet	160,000
<b>Total</b>	<b>1.8 million tons</b>



# Michigan E85 Pump Locations

(as of Feb. 2, 2007)

- 
- Lenawee Farm Bureau Oil Co-op, Adrian
  - Meijer Gas, Adrian
  - Meijer Gas, Ann Arbor
  - North Star USA, Ann Arbor
  - Wesco, Big Rapids
  - Corrigan Sunoco, Brighton
  - Meijer Gas, Brighton
  - J&H Family Stores, Byron Center
  - Mobil, Canton
  - Meijer Gas, Canton
  - Meijer Gas, Commerce
  - Citgo, Dearborn Heights
  - Sunoco Gas, Detroit
  - Meijer Gas, Flint
  - J&H Family Stores, Grand Rapids
  - Meijer Gas, Grand Rapids
  - Sunnybrook Mobil, Grandville
  - Peterson Oil, Greenville
  - Meijer Gas, Holland

- Meijer Gas, Jackson
- Pacific Pride, Jackson
- Bob & Kay's Auto Wash, Kalamazoo
- Blodgett Shell, Lansing
- Vehicle & Travel Service Station, Lansing
- Meijer Gas, Lansing
- Angeli's Fuel Xpress, Menominee
- Mussers Service, LLC, Nashville
- Meijer Gas, Northville
- Cooperative Elevator Company, Pigeon
- Pettysville Junction, Pinckney
- Cooperative Elevator Company, Ruth
- Citgo, Southfield
- Meijer Gas, Sterling Heights
- Meijer Gas, Taylor
- Meijer Gas, Warren
- Meijer Gas, Washington Township
- Meijer Gas, Wyoming

Listing of E85 locations – [www.e85fuel.com](http://www.e85fuel.com)



# Future of Ethanol

- Improved production efficiencies?
- Increased corn hybrid technology?
- Increased acreage?
- Automobile advancement
  - Hybrid Technology
  - E85 fuel efficiency



# Future of Ethanol

## Cellulosic

- Potential feedstock – switchgrass, wood, corn stalks, wheat stubble, etc.
- Working on technology
  - need to reduce cost to break down cellulose
- Great potential
  - all biomass can be converted into ethanol
  - one operational plant



# 15 X 15 X 15

Production of -

- 15 billion bushels of corn

To produce -

- 15 billion gallons of ethanol

By -

- 2015





# Meijer E85 Commitment

livegreen  
**goyellow**  
.com

**FLEXFUEL**

E85 ETHANOL



# E85 Pump Opening Events

